

REMARKS

In an Office Action mailed on June 8, 2004, claims 1-15, 17-19, 24-28, 30, 31, 32 and 34-37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah in view of Dahlin; claims 16, 21-23, 29 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah and Dahlin and further in view of Belanger; and claim 20 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah and Dahlin and further in view of Egawa. The § 103 rejections are addressed below.

§ 103 Rejections of Claims 1-23 and 35:

When based on the modification of a reference, a *prima facie* case of obviousness requires the Examiner to show where the prior art contains the alleged suggestion or motivation for the modification. More specifically, for the instant application, this requirement means the Examiner must show where the prior art contains the alleged suggestion or motivation for the modification of Chuah in view of Dahlin to derive the claimed invention. However, for at least the reasons that are set forth below, Applicant submits that a *prima facie* case of obviousness has not been established for claim 1.

In order to combine Chuah and Dahlin to derive the claimed invention, the system set forth in Chuah must be modified so that in response to the beginning of a particular reserved time slot, the scheduler 2230 (or other entity) transmits data to the remotes 2210 or wired hosts 2240 that are not using the reserved time slot to prevent the remotes 2210 or wired hosts 2240 from transmitting. However, the Examiner has not shown where the prior art contains the alleged suggestion or motivation for this modification.

More specifically, Dahlin discloses a technique of continuously transmitting flags to indicate whether a particular slot of a *control channel* is reserved, busy, etc. (*emphasis added*). In this regard, Dahlin teaches that the base station continuously transmits messages in the control channel time slots 1 and 4. Dahlin, 4:11-12 and 3:20-25. Thus, the reservation flag that is disclosed in Dahlin indicates whether a time slot in a control channel is reserved. Communications over the control channel may be used for various purposes, such as, for example, for the purposes of a mobile station responding to an authorization query from the base station. Dahlin, 3:46-49. However, there is no teaching or suggestion in Dahlin regarding transmitting the reservation flags in non-control channels, such as the traffic channels.

Thus, applying the teachings of Dahlin to Chuah, at best, one arguably may have been motivated to employ the control channel time slot reservation notification of Dahlin to the request channel of Chuah. In this regard, Chuah discloses that time slots are reserved based on communications over its request channel. Chuah, 9:65-67 and 10:1-11. However, Chuah discloses that transmissions on its request channel, i.e., a control channel, "are on a multiple access basis." Chuah, 9:65-66. Thus, at best, one skilled in the art in view of Dahlin may have been motivated to modify Chuah's system so that instead of communications over the request channel use the reservation flags.

However, there is no teaching or suggestion in either Chuah or Dahlin for the modification of Chuah so that the reservation flags are transmitted over the transmission channel 2250 of Chuah. Without such a suggestion or motivation, a *prima facie* case of obviousness has not been established for independent claim 1.

"Obviousness cannot be predicated on what is unknown." *In re Spormann*, 363 F.2d 444, 448, 150 USPQ 449, 452 (CCPA 1966). Rather, the Examiner must show that one skilled in the art, *without knowledge of the claimed invention*, would have modified Chuah in view of Dahlin to derive the claimed invention. As set forth above, even assuming, for purposes of argument, that the suggestion or motivation for the general combination exists, this combination does not produce the claimed invention. Therefore, for at least the reason that the Examiner fails to show where the prior art contains the alleged suggestion or motivation to modify Chuah in view of Dahlin to derive the claimed invention, a *prima facie* case of obviousness has not been set forth for independent claim 1.

Dependent claims 2-23 are patentable for at least the reason that these claims depend from an allowable claim. However, the dependent claims are separately patentable for at least the reason that these claims set forth patentable limitations that further distinguish the claimed invention from the combination of Chuah and Dahlin. For example, claim 7 recites that the reservation frame indicates one or more of a traffic priority, a start time and traffic type. The Examiner fails to specifically address the limitations of claim 7 by showing where these limitations are allegedly taught or suggested in either Dahlin or Chuah. Instead, the Examiner refers to portions of Chuah to allegedly teach that the base station bases priority on a connection identity, bases a start time when reservation is received and bases a traffic type for an uplink frame. However, none of the cited language teaches or suggests a *reservation frame* that

indicates one or more of a traffic priority, start time and a traffic type (*emphasis added*). Rather, Chuah simply mentions that the remote devices transmit access requests via a request channel to the base station. The specifics of any "reservation frame" are not disclosed or suggested. Therefore, for at least this reason, claim 7 is further patentable in view of the combination of Chuah and Dahlin.

As another example, claim 8 recites that the reservation frame indicates a required throughput and a periodicity of transmissions if the central authority does not know a traffic type of the communication. As set forth above, Chuah does not disclose a reservation frame or the specific format of the request and thus, for at least this reason, further fails to disclose the additional limitations that are presented by claim 8.

Regarding claim 15, the Examiner refers to the language in lines 7-14 of column 5 and lines 35-38 in column 17 of Chuah. However, this language merely refers to collisions that occur when more than one entity is transmitting during a particular time slot. This language does not, however, teach or suggest communicating between a central authority and a local station to indicate acceptance or refusal of a request. Therefore, the cited language does not teach or suggest whether a particular reservation request was accepted or denied.

As yet another example, claim 35 recites that the transmitting of claim 1 includes populating network allocation vectors of the other local stations. The Examiner does not specifically address the limitations of claim 35. A "network allocation vector" is a recognized term in the art. A flag that indicates whether a control channel time slot is reserved or not does not teach or suggest such a network allocation vector. All claim limitations must be taught or suggested by the prior art. M.P.E.P. § 2143. Thus, for at least this additional, independent reason, a *prima facie* case of obviousness has not been set forth for claim 35.

Therefore, for at least the reasons that are set forth above, withdrawal of the § 103(a) rejections of claims 1-23 is requested.

Rejections of Claims 24-30 and 36:

The wireless communication system of independent claim 24 includes a central authority to if a time slot is reserved, in response to the beginning of the time slot, transmit data to other local stations to prevent other local stations from transmitting.

As discussed above in connection with independent claim 1, the combination of Chuah and Dahlin does not teach or suggest the central authority of claim 24. Rather, Dahlin is directed to transmitting reservation flags in a control channel, whereas the reservation frames in Chuah are directed to non-control traffic reservation. Thus, the combination of Dahlin and Chuah, assuming this combination is proper, does not produce the claimed invention without hindsight gleaned from the current application. Therefore, for at least this reason, a *prima facie* case of obviousness has not been established for independent claim 24.

Claims 25-30 and 36 are patentable for at least the reason that these claims depend from an allowable claim. Additionally, the claims that depend from claim 24 are patentable for additional, independent reasons. For example, at least claims 27, 28 and 36 are separately patentable for at least the reasons set forth above in the discussion of claims 7, 8 and 35, respectively.

Therefore, for at least the reasons that are set forth above, withdrawal of the § 103(a) rejections of claims 24-30 and 36 is requested.

Rejections of Claims 31-34 and 37:

The article of independent claim 31 includes a machine-readable storage medium that stores instructions to cause a control unit to in response to the beginning of the time slot, transmit data to local stations to prevent the other local stations from transmitting.

As set forth above in the discussion of claims 1 and 24, the combination of Dahlin and Chuah does not teach or suggest the claimed invention, as even assuming this combination is proper, the transmission of reservation flags would occur over a control channel, not over the traffic channels that are reserved in the scheme disclosed in Chuah. Therefore, for at least the reasons that the Examiner fails to show where the prior art contains the alleged suggestion or motivation for the modification of Chuah in view of Dahlin to derive the claimed invention, a *prima facie* case of obviousness has not been set forth for independent claim 31.

Claims 32-34 and 37 are patentable for at least the reason that these claims depend from an allowable claim. Furthermore, claims that depend from claim 31 are separately patentable for independent reasons. For example, claim 37 is separately patentable for at least the reasons that are set forth above in the discussion of claim 35.

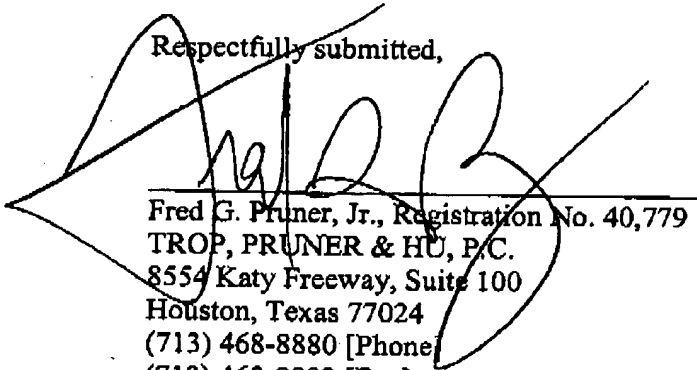
Therefore, for at least the reasons that are set forth above, withdrawal of the § 103(a) rejections of claims 31-34 and 37 is requested.

CONCLUSION

In view of the foregoing, withdrawal of the § 103(a) rejections and a favorable action in the form of a Notice of Allowance are requested. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-1504 (NTC.0002US).

Respectfully submitted,

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